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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,422	11/03/2003	Masahiro Kato	041514-5129-01	1522

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EXAMINER	
CHU, KIM KWOK	
ART UNIT	**PAPER NUMBER**
2627	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/698,422	KATO ET AL.	
	Examiner	Art Unit	
	Kim-Kwok CHU	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Pre-Amendment filed on 11/3/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6,9,11 and 14* is/are rejected.

7)☒ Claim(s) *7,8,10, 12,13 and 15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/893,731.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

2. Claims 6, 9, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaoka et al. (U.S. Patent 6,404,729) in view of Kuroda et al. (U.S. Patent 6,181,657).

Yamaoka teaches a method of manufacturing a recording medium having steps very similar to that of the instant invention as cited in claims 6 and 9. For example, Yamaoka teaches the following:

(a) as in claim 6, the recording medium having pairs of groove tracks 20a and land tracks 30a provided side by side while being bent periodically (Fig. 1; column 2, lines 26-36);

(b) as in claim 6, the recording medium has a plurality of land prepits 40a previously formed on the land tracks and carrying information about the groove tracks (Fig. 1; column 2, lines 37 and 38);

(c) as in claim 6, a recording layer 10 formed on at least the groove tracks and the land tracks (Fig. 1);

(d) as in claim 6, shifting the prepits in a direction perpendicular to a direction in which the groove tracks extend (Fig. 1; prepits are shifted sideway);

(e) as in claim 6, returning the shifted prepits to a position where the groove tracks 20a should extend, thereby forming the land prepits 40a having sides defined by curved surfaces continuously extending from sides of the groove tracks 20a (Fig. 1);

(f) as in claim 6, the prepits 40a making those sides of the groove tracks 20a which face the sides of the land prepits having curved surfaces that stricture (constrict) the groove tracks (Fig. 1; column 3, lines 1-4; prepits can be formed on the other side of the land so that the prepits reside on the groove); and

(g) as in claim 9, a length of the land prepits in a tangential-to-track direction and a width of the land prepits in a direction perpendicular to the tangential-to-track direction are set to values that allow an offset level of an information signal reproduced from said groove tracks by the land prepits to be smaller than a predetermined value and a signal level of the land prepits to lie within a predetermined

range (Fig. 1; the arrangement of the prepits do not raise cross talk).

However, Yamaoka does not teach the following:

(a) as in claim 6, forming the groove tracks extending by irradiating a spot of a cutting light beam, which moves relatively to a recording master disk, on a photoresist layer formed on said recording master disk; and

(b) as in claim 6, shifting the spot of the cutting light beam in a direction perpendicular to a direction of the groove to form prepits.

Kuroda teaches the following:

(a) forming the groove tracks extending by irradiating a spot of a cutting light beam, which moves relatively to a recording master disk, on a photoresist layer formed on the recording master disk (Figs. 3 and 3A); and

(b) shifting the spot of the cutting light beam in a direction perpendicular to a direction of the groove to form prepots (Figs. 1 and 2b).

To provide address information of the tracks and reduce the cross talk noises, prepits are cut on the side of the tracks on an optical recording medium such as Yamaoka's and Kuroda's. Although Yamaoka does not disclose how the prepits are formed, for obtaining the method of cutting the prepits along the tracks, it would have been obvious to use an optical

disc manufacturing method such as Kuroda's, because Kuroda teaches a wobbling prepit cutting steps formed on the land tracks so that tracking addresses can be accessed.

3. Apparatus claims 11 and 14 are drawn to the apparatus corresponding to the method of using same as claimed in claims 6 and 9. Therefore apparatus claims 11 and 14 correspond to method claims 6 and 9, and are rejected for the same reasons of obviousness as used above.

Allowable Subject Matter

4. Claims 7, 8, 10, 12, 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 7 and 12, the prior art of record fails to teach or fairly suggest a recording medium manufacturing step and system having the following feature:

(a) the sides of said land prepits have a radius of mean curvature smaller than a radius of mean curvature of sides of the groove tracks in non-present regions of the land prepits.

As in claims 7 and 13, the prior art of record fails to teach or fairly suggest a recording medium manufacturing step and system having the following feature:

(a) the spot is caused to wobble with a first amplitude in the step of forming said groove tracks, and the spot is caused to wobble with a second amplitude greater than the first amplitude in forming curved sides which stricture the groove tracks and curved sides which define said land prepits.

As in claims 10 and 15, the prior art of record fails to teach or fairly suggest a recording medium manufacturing step and system having the following feature:

(a) the predetermined value of the offset level is 0.05 and the predetermined range of the signal level is 0.18 to 0.27.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tomita (6,335,070) is pertinent because Tomita teaches an optical disk having wobbling lands and grooves.

7. Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(571) 273-8300 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application should be directed USPTO Contact Center (703) 308-4357; Electronic Business Center (703) 305-3028.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kim-Kwok CHU
Examiner AU2627

KC 3/28/06

March 28, 2006
(571) 272-7585

William Korzuch

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